National Park Service
U.S. Department of the Interior
Saguaro National Park
Tucson, Arizona

Plant Gathering for Traditional Purposes
Environmental Assessment

May 2018

Sonoran Desert Landscape at the Tucson Mountain District of Saguaro National Park.

PURPOSE AND NEED

Purpose and Need for Action

The National Park Service (NPS) is proposing to enter into an agreement with the Tohono O'odham Nation (TON) to approve the gathering of plant parts, to include saguaro cactus fruit, saguaro ribs, and cholla buds per 36 CFR 2.6, *Gathering of Certain Plants or Plant Parts by Federally Recognized Indian Tribes for Traditional Purposes.* The NPS has a long-standing and unique relationship with the TON and other affiliated federally recognized Indian tribes through a shared commitment to stewardship of the land and resources. Many Indian tribes have traditional associations with lands that predate the establishment of NPS units. These associations are through customary activities rooted in the traditions and history of the tribe and important to tribes' distinct culture. Some traditional associations include gathering or harvesting plants or plant parts for traditional purposes.

Following the establishment of the Tucson Mountain District (TMD) of Saguaro National Monument in 1961 (later designated as a national park in 1994), the TON's desire to continue harvesting plant parts on these lands gained the attention of Secretary of the Interior Stewart Udall. Udall supported traditional plant harvesting on these lands by the TON, then known as the Papago Tribe, by amending the Code of Federal Regulations to explicitly allow for the tribe to continue this activity (Appendix A). By the following harvest season (1963), the TON and Saguaro National Park (SNP) entered a Memorandum of Understanding (MOU) to formalize the terms of plant harvesting activities (Appendix B). This MOU remained in place into the 1970s until the text authorizing these activities was inadvertently dropped during a revision of Title 36 of the CFR (Toupal et al., 2006). Upon discovery of the omission in 1976, SNP sought an opinion from the Solicitor's Office on the continuation of the harvest. Based on this opinion, in 1977, SNP began issuing Special Use Permits to TON members to harvest saguaro fruits.

The August 2016 NPS rule, *Gathering of Certain Plants or Plant Parts by Federally Recognized Indian Tribes for Traditional Purposes* (36 CFR 2.6) has provided additional clarification on this issue. This rule indicates that removing or disturbing plants or plant parts is prohibited, except when an established management framework for gathering certain plants or plant parts by federally recognized tribes for traditional purposes has been fully analyzed. The rule explicitly prohibits all plant gathering unless specifically authorized by federal statute, treaty rights, existing CFR, or the terms and conditions of an agreement and permit issued under this rule.

To align with the rule, the TON has requested to enter into an agreement with SNP to continue traditional harvesting of plant materials (Appendix C). The rule requires the activities to be outlined in an agreement and analyzed in an Environmental Assessment (EA). This EA details the anticipated impacts of traditional gathering activities on park resources.

The rule stipulates that tribes must formally request access for gathering plant materials. The request must contain three elements:

1) An explanation of the traditional association and how it predates the park;
2) An explanation of the traditional purposes to which the gathering activity will relate;
3) A description of the gathering activity the tribe wants to conduct.

The TON's formal request to continue the traditional harvest of saguaro (*Carnegiea gigantea*) fruits and cholla (*Cylindropuntia* species) buds includes sufficient information to meet the NPS rule's requirements. The impacts of these proposed activities are analyzed within this EA.

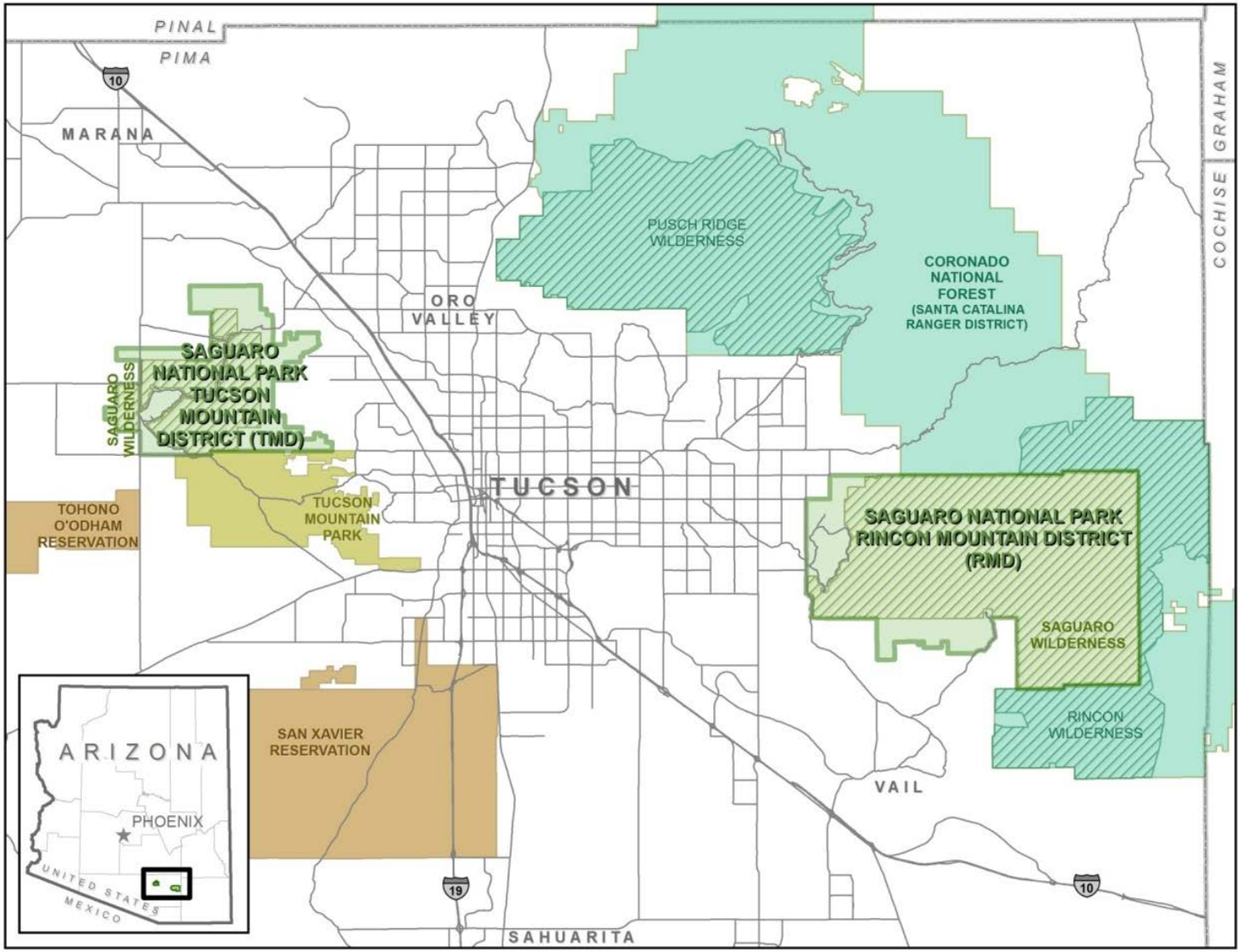

Figure 1. Map showing both districts of Saguaro National Park and the Saguaro Wilderness in relation to the city of Tucson, Arizona and vicinity.

Traditional Plant Harvest Activity Description

Saguaro Cactus

The saguaro fruit harvest is central to the cultural identity of the TON. Its value is beyond nutritional, as the TON culture views saguaros as family members and the fruit harvest as a critical element of their identity and relationship to their ancestors. The cultural importance of the saguaro fruit harvest is signified by it marking the beginning of a new O'odham New Year (Toupal et al, 2006).

Historical estimates indicate approximately 450,000 pounds of saguaro fruit were harvested annually throughout the region into the 1930s (Fontana, 1989). These demands decreased substantially over the following decades. At the time of the 1963 MOU over 250 tribal members annually harvested plant materials within the TMD, but by the 1970s participation had dropped to six families (Toupal et al., 2006).

Photo 1. Saguaro fruit harvesting. NPS Photos.

Saguaro fruits develop on the growing tips of the main stem and arms of the plant following successful pollination of flowers. The fruit remains attached to the plant until maturity, when it will eventually fall to the ground if not harvested first. Some fruit is collected from the ground, but most are pulled from the plant using a long pole with a short cross-piece near the top. Saguaro ribs from dead cactus are utilized to construct traditional harvesting poles. One to three saguaro

ribs are lashed together to create a pole tall enough to reach the arms and tops of the saguaros. Additionally, an approximately 12” piece of saguaro rib is used as the cross-piece at the top of the pole to aid in removing the fruit from the plant.

As a saguaro fruit matures, the outer, fleshy portion, or pericarp, splits into multiple segments or it can be sliced open using the sharp calyx that attaches the fruit to the plant. Harvested fruits can be boiled down to make concentrated syrup; fermented to make saguaro wine; or the seeds and fibers from the fruits can be spread onto drying frames to make fruit leather. Harvest rates for the inner, edible portion of saguaro fruits (not including the fleshy outer pod, which is not eaten) are estimated to be one gallon per person per day.

Harvest camps are a traditional component of saguaro fruit harvests where families and harvesting groups stay for multiple days during the collection and processing of fruit. One family harvest campsite and access road have been operated annually at a location now within SNP’s boundary spanning back to at least the 1920s (Toupal et al., 2006). The site measures 100 feet by 100 feet and is located at the southwest corner of the TMD, 400 feet within the park’s boundary along Sandario Road. The site includes a rustic shade structure, fire pit, and unimproved access road. Saguaro ribs are used to form the top of the shade structure. As these saguaro ribs decay, they would be periodically replaced with new ribs from dead saguaros collected within the park.

Cholla Cactus

Along with saguaro fruits, cholla buds also have cultural significance as a staple, edible food for the TON. The two cholla species traditionally harvested include buckhorn cholla (*Cylindropuntia acanthocarpa*) and staghorn cholla (*Cylindropuntia versicolor*). Harvest involves picking the buds directly from the plants, traditionally using tongs made from segments of saguaro ribs.

Photo 2. Staghorn cholla buds. NPS Photo.

After picking, the buds are processed by blanching or roasting to disarm any thorns or glochids attached to the buds. The buds can then be eaten directly, pickled, or dehydrated for storage and later use. The buds are eaten as a standalone food or can serve as a base ingredient in recipes for various traditional dishes. Harvest rates for cholla buds are also estimated to be approximately one gallon per person per day.

Relationship to Other Plans and Policies

Current plans and policy related to the management of park resources are consistent with the activities outlined in this document including:

- **NPS Organic Act of 1916 (Title 16 of U.S. Code, Ch. 1)** states: "*The service thus established shall promote and regulate the use of the Federal areas, known as national parks, monuments, and reservations….by such means and measures as conform to the fundamental purpose of the said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations." T*he Act was reaffirmed by Congress in 1970 in 16 USC 1a-1 "General Authorities Act," which added specific guidance, particularly regarding leaving park resources unimpaired.

- **NPS Management Policies – Section 5.3.1 – Protection and Preservation of Cultural Resources** states: "*The National Park Service will employ the most effective concepts, techniques, and equipment to protect cultural resources against theft, fire, vandalism, overuse, deterioration, environmental impact, and other threats without compromising the integrity of the resources."*

- **The Wilderness Act of 1964:** This Act established a national wilderness preservation system, *"administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness."*

- **36 CFR 2.1 Preservation of natural, cultural, and archeological resources (c)(1)** states: "*The superintendent may designate certain fruits, berries, nuts, or unoccupied seashells which may be gathered by hand for personal use or consumption upon a written determination that the gathering or consumption will not adversely affect park wildlife, the reproductive potential of a plant species, or otherwise adversely affect park resources."*

- **Saguaro National Park Superintendent's Compendium (2017) cites 36 CFR 2.1(c)(1), (c)(2) and states:** *"Collection of a reasonable amount of native fruit is permitted for personal use for consumption on site. The following species are classified as native fruits for the purposes of collecting: [saguaro cactus fruit, prickly pear cactus fruit, cholla buds, mesquite seed pods, ironwood seed pods, barrel cactus fruit, pinyon pine nut, jojoba fruit, whitethorn acacia seeds, and mammillaria cactus fruit]."*

Impact Topics Retained for Further Analysis

Impact topics are the resources or issues of concern that could be impacted by the range of alternatives. NPS specialists used federal laws, regulations, management policies, and scoping results to identify the impact topics retained for further analysis. Impact topics are organized to facilitate the analysis of environmental consequences and allow for a standard comparison between alternatives based on the most relevant information. One topic is carried forward for further analysis in this EA: Saguaro and Cholla.

Impact Topics Dismissed from Further Analysis

The following topics are dismissed from further analysis in this EA:

Archeological Resources

SNP's archeological resources reflect the region's long history of human presence, and reveal the changing human relationship with the landscape. Approximately 25% of SNP has been formally surveyed for archeological sites, and 423 sites (both prehistoric and historic) have been recorded. Archeological sites found in SNP can be broadly categorized as prehistoric or historic. Prehistoric sites can be further categorized as undated prehistoric, Archaic (2,500 to 10,000 years old), and Ceramic (450 to 1400 years ago). Historic sites can be categorized as Historic Native American (post circa 1500 A.D.) and Historic Euro-American. In the Rincon Mountain District (RMD) the area below 4,000 feet elevation and selected high elevation areas (i.e., camp sites and trails) have been intensively surveyed for cultural resources. At the TMD all developed areas (e.g. picnic areas, trails, road corridors, and park facilities) as well as all lands acquired by the park after 1990, have been intensively surveyed for archeological sites (Simpson and Wells 1983, Simpson and Wells 1984, Wells 1986, Clemensen 1987, Donohoe 1994, Wellman 1994, Wells and Reutter 1997, Neff et al. 2001).

In the RMD, 312 archeological sites have been recorded. Eighty-nine percent (278) of these are prehistoric, and all but 39 of the 312 sites lie below 4,000 feet elevation. This distribution of sites, combined with the small number of sites found during high elevation surveys, indicates that most prehistoric sites are found below about 3,500 feet elevation. Most of the historic, Euro-American mine sites are also found below this elevation. Other historic archeological sites at RMD include ranching and homestead sites, as well as four historic lime kilns. The Freeman Homestead and the lime kilns are on the State Register of Historic Places. There are also a number of historic structures at RMD. These include Manning Cabin and the Rincon Mountain District Visitor Center, both of which are on the National Register of Historic Places.

In the TMD, 111 archeological sites have been recorded; 75% of these are prehistoric. It is difficult to categorize the distribution of prehistoric sites at TMD due to the limited archeological survey effort. To date, no large prehistoric habitation sites have been found at TMD, only small artifact scatters, resource procurement sites, and rock art sites. There are 78 Civilian Conservation Corps (CCC) features at TMD that are on the park's List of Classified Structures, and they are considered eligible for the National Register of Historic Places (Donohoe 1994). These, along with the Gould Mine powder house, are the only historic, non-archeological structures recorded at TMD. There are 137 abandoned mine sites throughout the TMD; eleven of these have been determined eligible for the National Register by the Arizona State Historic Preservation Office (ASHPO 2010). Other historic archeological sites include small artifact scatters, two lime kilns, and a CCC camp.

The saguaro fruit harvest camp and road has been documented as being used annually since the 1920s (Toupal et al., 2006). Continued use of the road and camp would not be expected to cause disturbance to archeological resources.

Foot traffic associated with plant gathering is expected to cause minimal damage to archeological materials on the ground surface. These materials may include ceramic, stone and metal objects. While harvesters could inadvertently step on items that could cause permanent damage or breakage, the likelihood of this occurring is low due to the restricted group sizes (i.e. less than seven people), infrequent use, and the avoidance of cultural sites. Archeological material could be encountered by harvesters, but they would be explicitly prohibited from collecting any archeological resources under the terms of the MOU. Any potential disturbances to archeological resources are not expected to exceed negligible levels.

Ethnographic Resources

Ethnographic resources are defined by the NPS as a "site, substance, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it" (Director's Order 28: Cultural Resource Management). The continued access to plant materials as ethnographic resources is the central focus of this EA.

American Indian tribes traditionally associated with SNP include the Ak-Chin Indian Community Council, Fort McDowell Yavapai Nation, Gila River Indian Community Council, Hopi Tribe, Pascua Yaqui Tribe, Salt River Pima-Maricopa Indian Community, Tohono O'odham Nation, and Zuni Tribes. The Tohono O'odham Nation is the only affiliated tribe which has requested to harvest plant materials within SNP.

The No Action Alternative would be detrimental to the collaborative working relationship SNP currently enjoys with the TON, because it would discontinue the traditional uses on these lands that have been documented for centuries pre-dating the park. Harvesting cholla buds, saguaro fruits, saguaro ribs, and the use of a saguaro fruit harvest camp are key components of the cultural identity of the TON. The Proposed Action would allow TON members to exercise traditional practices which connect them to ethnographic resources on their ancestral lands. This alternative would be beneficial to ethnographic resources while ensuring that other resources are protected; therefore this topic is not further analyzed within this EA.

Environmental Justice

Executive Order 12898: General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations require all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.

Tucson, as a nearby community, contains both minority and low-income populations. Activities proposed in this analysis would not have disproportionate negative health or environmental effects on any communities, including minority or low-income populations because access to saguaro fruit and cholla buds would continue to be available to all populations as specified in the Superintendent's Compendium (2017). The activity would benefit minority and low-income tribal members through supplemental sources of traditional foods; therefore, environmental justice is not analyzed in further detail as an impact topic in this document.

Indian Trust Resources and Sacred Sites
Indian trust resources are those natural resources reserved by or for Indian tribes through treaties, statutes, judicial decisions, and executive orders, which are protected by fiduciary obligation on the part of the United States (NPS 2006). The federal Indian Trust responsibility is a legally enforceable fiduciary obligation on the part of the U.S. to protect tribal lands, assets, resources and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes.

No park lands or resources identified in the project area are held in trust by the Secretary of the Interior for the benefit of American Indians. Two locations within SNP have been identified by archeologists as potentially having sacred significance to American Indians. Both locations occur at high elevations, outside the desertscrub habitat in which saguaros and chollas can survive. No other sacred sites have been communicated to SNP by affiliated tribes. For these reasons, Indian Trust Resources and sacred sites are not analyzed in further detail as an impact topic in this document.

Socioeconomics
Socioeconomics encompass both social and economic features that characterize the individual or group within the social structure. SNP supports the NPS mission by providing opportunities to park visitors, the non-visiting public, and nearby communities to gain increased understanding through interactions with park resources.

This topic also relates to local and regional businesses and residents, and local and regional economies. The local economy and many businesses in neighboring communities rely on construction, recreation, transportation, tourism, services, and educational research. The regional economy is strongly influenced by tourist activities focused on the cultural diversity of the area. Activities proposed in this analysis would not deter people from visiting SNP or neighboring communities. Activities proposed in this analysis would further enhance recognition of the cultural heritage of the area which supports both social and economic features; therefore, socioeconomics are not addressed as an impact topic in this document.

Visitor Use and Experience
Annual recreational visitation to the park has averaged 650,000 over the past decade. The typical peak visitation period is January through March. The months with the lowest visitation levels are July and August. Visitors utilize scenic drives, view waysides, visitor centers, and hike frontcountry and backcountry trails throughout the park. The activities being examined in this EA would generally occur in remote locations when the annual cycle of visitation is relatively low, but could at times occur in view of the public along roads and trails.

SNP showcases traditional harvesting activities in the Sonoran Desert through the park's interpretive movie, displays, signs, and programs. Additionally, some visitors may participate in demonstrations and educational tours of the saguaro fruit harvest camp. The No Action Alternative would be out of alignment with the prevailing public view that celebrates the use of Sonoran Desert lands by the TON for the requested traditional practices. The majority of unsolicited comments about tribal plant harvesting have been positive, with visitors reporting it enriching their experiences. Based on these comments, prohibition of this activity would be detrimental to the visitors that could encounter the activities.

Based on unsolicited public feedback about interpretive displays and media and interactions with tribal members, traditional use of plant materials could have an enriching, positive impact

on visitors; therefore, Visitor Use and Experience are not addressed as an impact topic in this document.

Wilderness
Wilderness areas are special, wild places designated by an act of Congress to remain forever in their natural state as a prized part of our national heritage. Most of the land base in SNP (78%) was formally designated as wilderness in 1976 (PL 94-567), totaling 70,905 acres. "*A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain.*" (Wilderness Act, subsection 2c). Wilderness is further defined as having the following characteristics:

- *Untrammeled*. Wilderness is essentially unhindered and free from the actions of modern human control or manipulation.
- *Natural.* Wilderness ecological systems are substantially free from the effects of modern civilization.
- *Undeveloped.* Wilderness retains its primeval character and influence and is essentially without permanent improvement or modern human occupation.
- *Solitude or primitive and unconfined recreation.* Wilderness provides outstanding opportunities for solitude or primitive and unconfined recreation.
- *Other features.* Wilderness preserves unique attributes or other features that reflect the character of a specific wilderness. This includes any special ecological, geological, scientific, educational, scenic, or historical value resources or sites.

The saguaro fruit harvest camp is located outside wilderness and saguaro ribs could only be harvested outside wilderness; however, saguaro fruit and cholla bud harvesting activities would occur in wilderness and non-wilderness areas. The plant harvesting agreement between SNP and the TON would specify that harvesting activities would take place with non-mechanized tools and harvesting groups would be limited to seven people. These practices follow traditional methods which minimize impacts on the natural, undeveloped, untrammeled qualities of these areas, and limit infringement on the solitude and primitive nature protected by the Saguaro Wilderness.

A Minimum Requirements Decision Guide (MRDG) was utilized for more detailed analysis of the anticipated effects of these activities on the Saguaro Wilderness. This analysis determined that traditional harvesting activities would be expected to have limited short-term, ephemeral impacts because of the short duration each year when saguaro fruit and cholla buds are at the optimal stage for harvest, use of non-mechanized tools, and limited group size. For these reasons, wilderness is dismissed as a topic for further analysis.

Wildlife and Special Status Species
Two wildlife species currently listed by the U.S. Fish and Wildlife Service (USFWS) as threatened or endangered are known to utilize habitat at SNP. These are Mexican spotted owls (threatened) and yellow-billed cuckoos (threatened). SNP also contains designated critical habitat for Mexican spotted owls in areas over 6,000 feet in elevation.

Common non-listed wildlife in areas likely to be visited includes those that utilize Sonoran desertscrub. Resident fauna includes mule deer, coyote, javelina, white-throated woodrat, cactus mouse, Harris' antelope ground squirrel, round tailed ground squirrel, desert cottontail, diamondback rattlesnake, Gila monsters, roadrunner, and Gambel's quail, along with other bird,

mammal and reptile species. Lower elevations at the TMD contain some species not found at the RMD, such as kit fox, desert iguana, long-nosed leopard lizard, and sidewinder rattlesnake (Powell et al. 2007).

The two threatened species that inhabit the park are not expected to be encountered during plant harvesting activities. Mexican spotted owls nest in the highest elevations of the Rincon Mountains and their designated critical habitat is above 6,000 feet, well above desertscrub habitat where saguaros and chollas occur. Yellow-billed cuckoos are only known to occur in remote areas of the RMD, where harvesting activities will not occur due to the extreme inaccessibility.

Because of the use of non-mechanized tools with harvesters working in small family groups, minimal noise is created by the activity. Disturbance to non-listed wildlife from plant harvesting activities and related noise is expected to be ephemeral as harvesters travel into an area, collect plant parts, and then leave the area over a matter of a few hours. The disturbance itself would be low-intensity (e.g., causing an animal to move away from the site), due to the short duration and limited group sizes. Impacts are expected to be localized surrounding the harvested plants, but would not impact populations given the surrounding habitat that wildlife can temporarily move into until harvesters move to other locations.

Photo 3. White-winged dove sitting atop a fruiting saguaro. NPS Photo.

At the saguaro fruit harvest camp, wildlife could be temporarily disturbed by vehicles driving along the 400 feet of road to the camp and by activities associated with processing the fruit and harvesters living at the site for multiple days. The noise created by these activities could disturb any nearby wildlife. Noise levels would not be expected to exceed normal levels for a campsite. This disturbance would occur over multiple days, but is expected to be low-intensity as wildlife could utilize abundant adjacent habitat during occupation of the site. Additionally, any food or

personal items that could attract wildlife would be required to be stored to prevent consumption or transport by wildlife.

Perhaps the most substantial impact to non-listed wildlife species would be the removal of plant parts that could otherwise serve as food and moisture sources. Saguaro fruit is an important source of nourishment for many Sonoran Desert wildlife species such as white-winged doves, mourning doves, coyotes, and many others (McClure et al. 1995). The fruit serves up to 50% of the total summer diet of white-winged doves (Wolf & Martínez del Rio, 2000; Wolf et al. 2002). Removing these materials from the harvest locations would reduce their availability for wildlife; however, less than 50 gallons of plant material would be harvested, which is a negligible amount relative to overall sources spread across 35,000 acres. Additionally, traditional harvesting practices delay the initiation of harvesting so that wildlife may consume the first fruits of the harvest. Furthermore, the practice of not revisiting a plant more than once per season along with the plant's biology limit the amount of fruits that could be harvested from any plant to less than one third. For example, Photo 3 shows only one out 15 fruits would be ripe and ready for harvest on any given day during June or July when the TON would be harvesting the fruit.

Removal of cholla buds prevents the buds from maturing into flowers and providing nectar to pollinators. Additionally, the flowers would not be pollinated and would be prevented from maturing into fruit which could also be utilized by animals. With less than 10 gallons of cholla buds typically harvested in the park annually, impacts are not measurable when considering the availability across 35,000 acres of cholla habitat within the park.

Due to the short duration of the activity, abundant adjacent undisturbed lands, and extreme remoteness of habitat for threatened and endangered species, impacts of traditional harvesting activities on special status species are expected to be ephemeral and low intensity. Non-listed species would be impacted by the disturbance of harvesters moving through the landscape and the removal of sources of nutrition and moisture. Traditional harvesting practices minimize these wildlife impacts by only using non-mechanized hand tools; giving wildlife time to harvest the first fruits of the season; harvesting less than approximately one-third of the available fruits or buds; and not revisiting the same plant more than once per season. For these reasons, wildlife and special status species are dismissed as a topic for further analysis.

ALTERNATIVES

Two alternatives, a No Action and a Proposed Action (the NPS Preferred Alternative), were considered and are carried forward for evaluation in this EA.

No Action Alternative – Alternative A

Under the No Action Alternative, plant harvesting activities would not be permitted for Native American traditional purposes. A small amount of on-site consumption would be available to anyone from the public as specified in the Superintendent's Compendium (SNP, 2017). Any harvest of plant materials in excess of this amount by members of the TON would not be lawful and would be subject to law enforcement action.

Plant Gathering for Traditional Purposes Alternative – Alternative B (NPS Proposed Action and Preferred Alternative)

Removal of saguaro and cholla material and the use of a saguaro fruit harvest camp and associated access road as ethnographic resources as described in the Traditional Plant Harvest Activity Description section above is the primary action considered in this EA. Sonoran Desert vegetation is generally slow-growing and long-lived, including the species requested by the TON for harvesting. These species would be harvested at different times of year as the plant parts of focus reach their optimal time for harvest. Cholla buds are typically harvested in April; saguaro fruits are harvested in June or July. Approximately one gallon of cholla buds and one gallon of saguaro fruits is the anticipated maximum volume harvested per person per day, with less than one third of the total fruit or buds available on a single plant harvested.

Under Alternative B, the TON would carry out plant harvesting activities to include saguaro fruits and cholla buds. This activity would take place under terms specified in an agreement signed by SNP's Superintendent and the TON's Chairperson, and authorized annually through a special use permit. Through a separate special use permit, the park could continue to allow the saguaro fruit harvest camp to be used during the traditional harvest period for processing fruit and camping. Harvest of these species by TON members would follow traditional techniques. These general parameters would be followed to reduce impacts to natural and cultural resources, and would be specified in an agreement:

Harvesting Activities

- Group sizes would be limited to seven people to reduce impacts to vegetation, soils and archeological materials. If more than seven people are in the party, the party will split into smaller groups to harvest in areas at least 50 yards apart to reduce the concentration of impacts.
- Traditional harvesting practices would be followed such as allowing wildlife to consume the first fruits available; only harvesting fruits and buds at their optimal maturity; only harvesting from each plant once per year; and concluding the harvest at the initiation of monsoon rains.
- For cholla buds, traditional harvest (typically in April) would exclude those buds that are either too mature or immature for consumption, and focus on the buds at the optimal developmental stage for harvest.
- A single saguaro or cholla plant would only be harvested once per year.
- No mechanized equipment would be authorized for use during harvest activities, except for transportation purposes along public roads.
- The intent of the harvest would be for household consumption and tribal functions, not for commercial purposes.
- Use of the park for harvesting activities would be limited to daytime hours.
- Non-tribal members could only participate for educational purposes, with prior notification given to SNP's designated point of contact.
- Within portions of the 35,000 acres of desertscrub habitat, wildland fires fueled by non-native species can cause widespread saguaro and cholla mortality. Under these circumstances, SNP would likely prohibit saguaro and cholla harvesting in these areas to minimize further disturbance while regeneration occurs.

Saguaro Fruit Harvest Camp Activities

- Vehicle use would be limited to the access road to prevent ground disturbance.
- TON members would provide and maintain a portable toilet while the camp is in use.
- Water and firewood would be brought in by TON members from outside the park.
- All trash would be collected, stored to prevent wildlife consumption, and removed from the site.

- Noise and artificial lighting would be minimized to prevent disturbance to wildlife.

Though some saguaro fruits would be collected from the ground, most would be pulled from the plant using a long traditional harvesting pole with a short cross-piece near the top. Saguaro ribs would be used to construct traditional harvesting poles. One to three saguaro ribs would be lashed together to create a pole tall enough to reach the arms and tops of the saguaros. Additionally, an approximately 12" piece of saguaro rib would be used as the cross-piece at the top of the pole to aid in removing the fruit from the plant. Similarly, collecting cholla cactus buds may be done using tongs made from segments of saguaro ribs. Limited saguaro ribs may be collected from within the park only for the purpose of constructing a traditional harvesting pole or tongs. These tools would be left within the park at discreet locations where they can be retrieved and utilized again the following year to minimize the number of saguaro ribs being disturbed.

SNP and TON representatives would consult annually to identify any emerging issues or improvements that could be made to the agreement to optimize protection of park resources while allowing for traditional harvest activities to occur. During annual consultation, anticipated demand and specific areas desired for harvesting would be discussed. Per the NPS rule, the agreement automatically expires after five years. At its expiration, the agreement would be reviewed by the TON and SNP to identify any potential areas for improving the agreement

Alternative B has been identified by the park as the Preferred Alternative because it would best accomplish the Purpose and Need by establishing a framework for allowing tribal members to harvest plant materials while considering the full environmental impacts; bring SNP management of plant harvest activities into alignment with 36 CFR 2.6; and maintain collaborative relationships between SNP and the TON that enriches public appreciation of the TON's cultural heritage along with SNP's resources and historical uses.

Mitigation Measures

These additional mitigation measures would decrease the degree and/or extent of adverse impacts and would be implemented during the project:

Health and Safety

- SNP has an active invasive weed management program that involves the use of herbicide, including aerial application. The aerial application of herbicide is primarily targeted for areas that are too steep or remote to safely send ground crews. Because of the inaccessibility of these areas, they are unlikely to be targeted for harvesting activities. However, ground-based weed crews treat plants throughout SNP, including areas that are likely to be harvested. TON members would be notified about both aerial and ground-based annual spray plans so that they may avoid these areas and would be reminded that they may encounter active spray operations during harvest activities.
- A representative from each harvesting party would notify the Supervisory District Ranger about the general location and party size so that rangers may better respond to any emergent situations.

Invasive Plant Species

- Seeds from invasive plants could be inadvertently spread during plant harvest activities on harvesters' clothing and tools. Information about common weeds and how to prevent their spread would be included in annual consultation materials provided to the TON.

Visitor Use and Experience

- Visitor Center staff would be briefed prior to harvest periods about the activities and given training for providing informed responses to any public inquiries about observed harvest activities.
- The park prohibits off-trail travel below 4,500 feet in elevation, except when expressly authorized. Communication with the public at the Visitor Centers would occur to reduce the possibility of the general public being inspired to also travel off-trail in these otherwise prohibited areas; and to prevent the public from exceeding the provision in the Superintendent's Compendium allowing for on-site consumption of specific plant parts.

Wildlife & Special Status Species

- If species of special concern which rarely occupy the park (e.g. hog-nosed skunk or desert bighorn) are known to be in a particular area during harvest time, harvesters would be asked to avoid those areas. An ongoing wildlife monitoring project using remote cameras would also be utilized to periodically assess whether wildlife usage within the harvest areas differs from non-harvested areas.
- Potential impacts to all federally-designated threatened or endangered species or species of concern would be re-assessed if any change in listing status occurs and during the five-year agreement renewals to ensure that gathering activities are not impacting species listed after the completion of this EA.
- Harvesters would be advised to exercise care by working quietly and maintaining awareness to prevent disturbing any wildlife species found nesting, hibernating, estivating, or otherwise living in, or immediately nearby, harvest sites. Upon discovery of these circumstances, harvesters should immediately leave those areas to minimize disturbance.
- Participants would be provided an orientation and/or otherwise advised about sensitive species and their habitats to ensure those species and habitats can be avoided.

Wilderness

- Non-wilderness lands would be prioritized as rotational harvest areas over wilderness areas.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the affected environment (existing setting or baseline conditions) and analyzes the potential environmental consequences (impacts or effects) that would occur as a result of implementing the Proposed Action. Cumulative effects are analyzed for each resource topic carried forward.

Saguaro and Cholla

Affected Environment

As succulent species, saguaros and chollas occur in low-lying desertscrub habitat. Desertscrub occurs throughout most of the approximately 25,000 acres of the TMD and covers about 10,000 acres of the lower elevations of the RMD, essentially everywhere below 4,500 feet. At both districts, dominant species in the overstory include foothills paloverde, saguaro, ocotillo, and velvet mesquite. At TMD, ironwood is also a prominent overstory species. Common understory plants at both districts include brittlebush, barrel cactus, creosote bush, fairy duster, prickly pear, cholla, jojoba, bursage, and desert grasses.

Significant non-native weed populations are dispersed across the TMD and RMD within desertscrub habitat, most notably buffelgrass. SNP takes every precaution to limit off-trail travel through areas infested with buffelgrass to prevent the spread of weed seeds. Buffelgrass carries intensely hot fires which can cause widespread mortality to saguaros, chollas, and other Sonoran Desert vegetation.

Saguaro reproduction

Saguaros reproduce exclusively by seed; therefore, removing seeds (contained within the fruits) could be a concern for the species' reproductive potential. Estimates have found about 2,000 saguaro flowers per acre are produced in and around SNP, of which approximately 50% successfully develop into mature fruit. Each saguaro fruit contains about two thousand seeds giving an estimate of two million seeds produced per acre per year (McGregor et al., 1962).

Despite high germination rates, few saguaro seedlings survive to establishment (Steenbergh and Lowe, 1969). Recruitment of new seedlings is episodic, with very specific climatic conditions required over several months and years for establishment of new seedlings to be successful. Sometimes, decades can elapse before favorable temperature and moisture conditions align for the establishment and survival of the delicate seedlings. The last 25 years have been marked by greatly reduced recruitment due to prolonged, ongoing drought conditions (Orum et al., 2016). The most recent estimate of the total population of saguaros within SNP is roughly two million individuals (O'Brien et al., 2011) spread across 35,000 acres of desertscrub habitat in the two districts.

The "*outstanding scientific interest*" of saguaros and associated environment was identified in the park's enabling legislation. This interest places science-based research at the core of the park's mission. Park staff have worked with research scholars for decades to conduct robust and extensive ecological studies and monitoring activities on a wide range of research questions for the species.

Saguaro harvests were described hundreds of years before the establishment of the park (Toupal et al., 2006), and the harvests were closely monitored after the lands became part of the NPS. Additionally, saguaro demographics have been intensively studied in monitoring plots dispersed across SNP which are revisited every 10 years. Adverse environmental impacts from the accumulated centuries of harvest activity were not identified when the park began to manage these lands, and detrimental impacts on park resources have not been detected, statistically or observationally, after the NPS began to manage the lands.

Cholla reproduction

Cholla species predominantly reproduce vegetatively (Benson, 1982). Vegetative material falls off the plants or can, notoriously, become lodged in the skin or clothes of a passing human or the fur of animals. After being dislodged from the carrier, these segments can develop into new plants after coming into contact with soil. Cholla buds are the immature, unpollinated flowers of the plants. If successfully pollinated, the flowers eventually produce fruit containing seeds. These seeds are not a primary source of reproduction for the species, however.

Historic harvesting levels of cholla buds within the park is less well known than for saguaros and is assumed to have had much lower demand compared to saguaro fruit. Cholla species have also received less monitoring and research attention overall than saguaros. While the Superintendent's Compendium (2017) allows the general public to harvest cholla buds, this provision is not known to be utilized intensively.

Photo 4. Vegetative reproduction of a teddybear cholla (*Cylindropuntia bigelovii*) involving transport of segments by humans or animals. NPS Photo.

Impacts of Alternative A—No Action

The No Action alternative would prevent traditional plant harvesting activities from occurring. Under this alternative, there would be no potential impacts to vegetation.

Cumulative Effects

There would be no direct/indirect impacts on saguaro or cholla under Alternative A; therefore, there would be no cumulative effects.

Conclusion

The No Action alternative would preclude plant harvesting activities from occurring. Under this alternative, there would be no potential impacts to saguaro or cholla.

Impacts of Alternative B — (Proposed Action and NPS Preferred Alternative)

Removal of saguaro and cholla material is the primary action considered in this EA. Sonoran Desert vegetation is generally slow-growing and long-lived, including the species which have been proposed for harvesting. Cholla buds are typically harvested in April; saguaro fruits are harvested in June or July.

Traditional harvesting techniques and plant biology limit the total amount of saguaro fruit and cholla buds that may be harvested from a single plant. Saguaro fruits and cholla buds do not all ripen simultaneously. As Photo 3 shows, for saguaros, only one or a few fruits may be ripe on any given day. The numerous remaining immature fruits are left on the plant and would incrementally ripen over the coming days and weeks. For chollas, only a portion of the buds are in the optimal stage for harvest on any given day, while the majority of buds are either past the optimal maturity stage or too immature to harvest. In following with traditional practices, plants are not revisited repeatedly. Combined with the plants' reproductive characteristics of only a few fruits or buds being ripe on a given day, this practice leads to approximately less than one third of the overall fruits or buds being collected from a single plant during a harvest season.

No direct harm to individual saguaro or cholla plants result from the collection of fruit or buds, respectively, because the removal of these parts with traditional methods do not injure or damage the plant. The plants are indirectly impacted by the removal of reproduction material, however. For saguaros, this impact reduces seed availability which is the primary reproductive mechanism for the species. For chollas, the removal of buds reduce the future seeding potential of the plant, but has little impact because the plants primarily reproduce vegetatively (i.e. dislodging, transport, and rooting of cholla segments).

A limited number of saguaro ribs could be collected from dead cactus within the park for the construction of saguaro harvesting poles, cholla bud harvesting tongs, and replacement of any decayed saguaro ribs on the roof of the shade structure at the saguaro fruit harvest camp. Saguaro ribs would only be collected from dead plants and tools would be left on site so that they may be retrieved to be used in future harvests. Less than 20 saguaro ribs are expected to be used each year, which is approximately the same number of ribs contained in a single saguaro. Because of their abundance, the use of saguaros ribs for this purpose would not have a measurable impact.

Prolonged drought can have severe effects on saguaro recruitment. The current drought extending over 25 years has greatly reduced recruitment of new saguaros (Orum et al., 2016), as conditions are less favorable for germinating and sustaining the delicate seedlings. Removing saguaro seeds under this alternative would further reduce reproductive potential, but because the species produces prolific seeds, these impacts would be expected to have negligible impacts. Cholla reproduction would also suffer during periods of extended drought, but because chollas do not predominantly reproduce by seed the removal of cholla buds would not be expected to have a measurable impact on their reproduction under drought conditions.

Cumulative Effects

As noted in the Affected Environment, detrimental adverse impacts from the historical plant harvesting activities spanning centuries have not been identified within the larger Sonoran Desert or within SNP. Establishment of the park and the subsequent elimination of livestock grazing benefited saguaros and cholla. While the Superintendent's Compendium (2017) allows the general public to harvest saguaro fruits and cholla buds, this provision is not known to be utilized intensively; therefore, impacts are considered negligible. Collectively all of these actions have had and would continue to have adverse cumulative impacts on saguaro and cholla cactus. As noted above, the Proposed Action would result in the reduction of reproductive potential for saguaros and chollas. However, the anticipated low demand relative to historical harvest rates, reproductive characteristics of the plants, low impact traditional harvesting methods, rotational harvest areas, and broad geographic area of 35,000 acres of desertscrub habitat within the park make it unlikely that impacts would exceed negligible levels. When the effects of the Proposed Action are combined with the other past and present impacts, the total cumulative impact on saguaro and cholla cactus would continue to be both beneficial and adverse. The incremental impacts of the Proposed Action would contribute slightly to, but would not substantially change the impacts that are already occurring.

Conclusion

The Proposed Action would result in the reduction of reproductive potential for saguaros and chollas. However, the anticipated low demand relative to historical harvest rates, reproductive characteristics of the plants, low impact traditional harvesting methods, rotational harvest areas, and broad geographic area of 35,000 acres of desertscrub habitat within the park make it unlikely that impacts would exceed negligible levels. While available seed quantities for

saguaros and cholla would be diminished by this activity, harvesting is not expected to have an effect on saguaro or cholla population levels, because of the prolific seeding of saguaros and the predominantly vegetative reproduction of chollas.

LIST OF AGENCIES AND PERSON CONTACTED

Affiliation	Name	Title
Tohono O'odham Nation	Edward Manuel	Chairman
	Peter Steere	Tribal Historic Preservation Officer
	Joshua Rees	Acting Deputy Attorney General
National Park Service	Erin Janicki	Acting Chief, Environmental Quality Intermountain Region
	Heather Rice	NEPA Specialist, Environmental Quality Division, Intermountain Region
	Greg Phillips	Tribal Liaison Intermountain Region
	Stephanie MacDonald	Natural Resources Program Manager, Southern Arizona Office
	Matt Guebard	Archeologist, Southern Arizona Office
	Amy Cole	Chief, Cultural Resources Intermountain Region
	Michael Evans, Ph.D.	Chief, Ethnography Program & Senior Cultural Anthropologist
	Joe Watkins, Ph.D.	Chief, Tribal Relations & American Cultures; and Supervisory Cultural Anthropologist
State Historic Preservation Office	Kathryn Leonard	State Historic Preservation Officer
U.S. Fish and Wildlife Service	Julie McIntyre, Ph.D.	Supervisory Fish and Wildlife Biologist

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APPENDIX A. Federal Register Sept. 5, 1962

milliliter to 5.0 milliliters) to a blending jar containing 150 milliliters of dimethylformamide. Blend for 2 minutes in a high-speed blender and then dilute an aliquot with sufficient dimethylformamide to give a concentration of 400 units per milliliter (estimated). Further dilute this solution with 10 percent phosphate buffer, pH 6.0, to give a concentration of 20 units per milliliter (estimated). Proceed as directed in § 141c.-224(b). Its content of nystatin is satisfactory if it contains not less than 85 percent of the number of units that it is represented to contain.

(b) *Moisture.* Proceed as directed in § 141a.5(a) or § 141a.26(e) of this chapter.

§ 146c.263 Demethylchlortetracycline-nystatin for oral suspension.

Demethylchlortetracycline-nystatin for oral suspension conforms to all requirements and procedures prescribed by § 146c.254 for demethylchlortetracycline for oral suspension, except that:

(a) When reconstituted as directed in the labeling, each milliliter of oral suspension shall contain a quantity of demethylchlortetracycline hydrochloride equivalent to not less than 15 milligrams of demethylchlortetracycline hydrochloride and not less than 25,000 units of nystatin. The nystatin used conforms to the standards prescribed therefor by § 146c.224(a).

(b) The expiration date of the drug shall be 12 months.

(c) In addition to complying with the requirements of § 146c.254(d), a person who requests certification of a batch shall submit with his request a statement showing the batch mark and (unless they were previously submitted) the results and the date of the latest tests and assays of the nystatin used in making the batch for potency, toxicity, pH, moisture, and identity. He shall submit in connection with his request a sample consisting of one package for each 5,000 packages in the batch, but in no case less than 6 packages, collected by taking single packages at such intervals throughout the entire time of packaging the batch that the quantities packaged during the intervals are approximately equal, and (unless it was previously submitted) a sample consisting of 10 packages, each containing approximately equal portions of not less than 300 milligrams of the nystatin used in making the batch.

(d) The fees for the services rendered with respect to the samples submitted in accordance with the requirements of paragraph (c) of this section shall be:

(1) $5.00 for each immediate container in the sample of the batch.

(2) $4.00 for each immediate container of the nystatin used in making the batch.

I find that the drug demethylchlortetracycline-nystatin is safe and efficacious for use, conditions pertinent to its certification. I further find that notice and public procedure and delayed effective date are not necessary prerequisites to the promulgation of this order.

Effective date. This order shall become effective on the date of its publication in the FEDERAL REGISTER.

(Sec. 507, 59 Stat. 463 as amended; 21 U.S.C. 357)

Dated: August 29, 1962.

GEO. P. LARRICK,
Commissioner of Food and Drugs.

[F.R. Doc. 62-8855; Filed, Sept. 4, 1962; 8:51 a.m.]

Title 36—PARKS, FORESTS, AND MEMORIALS

Chapter I—National Park Service, Department of the Interior

PART 1—GENERAL RULES AND REGULATIONS

Preservation of Public Property, Natural Features and Curiosities; Picking of Cactus Fruit at Saguaro National Monument by Indians of Papago Reservation

Notice is hereby given that pursuant to the authority vested in the Secretary of the Interior by section 3 of the act of August 25, 1916 (39 Stat. 535; 16 U.S.C. 1–4), § 1.2 of Title 36, Code of Federal Regulations, is amended as set forth below.

The purpose of the amendment is to permit the Indians of the Papago Reservation in Arizona to pick and remove from the Tucson Mountain District of Saguaro National Monument the fruits of the Saguaro Cactus and other cacti in accord with other regulations applicable to the administration of the monument.

The following amendment shall become effective upon publication in the FEDERAL REGISTER in order to give the Indians of the Papago Reservation in Arizona the benefit of its provisions as soon as possible.

Paragraph (c) of § 1.2 is amended to read as follows:

§ 1.2 Preservation of public property, natural features and curiosities.

* * * * *

(c) Visitors may pick and eat, but not carry out of the parks or monuments, such native fruits and berries as the superintendent may designate. Fruits and berries shall be picked by hand. The use of rakes or mechanical pickers is prohibited. The regulations in this paragraph shall not apply to the Indians of the Papago Reservation in Arizona, who are permitted to pick and remove from the Tucson Mountain District of Saguaro National Monument the fruits of the Saguaro Cactus and other cacti; however, all such harvesting operations shall be done in a manner which will be in accord with other regulations applicable to the administration of the monument and pursuant to a written agreement between the superintendent of the monument and the Chairman of the Papago Tribal Council which will specify routes and methods of travel in the monument, camping places to be used, types of camps to be erected, condition in which campsites are to be left and the sanitary conditions to be maintained. Any such agreement shall be subject to review annually prior to the harvest season.

STEWART L. UDALL,
Secretary of the Interior.

AUGUST 28, 1962.

[F.R. Doc. 62-8840; Filed, Sept. 4, 1962; 8:48 a.m.]

Title 38—PENSIONS, BONUSES, AND VETERANS' RELIEF

Chapter I—Veterans Administration

PART 3—ADJUDICATION

Subpart A—Pension, Compensation, and Dependency and Indemnity Compensation

REDUCTIONS AND DISCONTINUANCES; GENERAL

In § 3.500, paragraphs (t) and (u) are amended to read as follows:

§ 3.500 General.

* * * * *

(t) *Treasonable acts or subversive activities.* (38 U.S.C. 3504 and 3505; §§ 3.902, 3.903.) Beginning date of award, or day preceding date of commission of treasonable act or subversive activities for which convicted, whichever is later. (See § 3.669.)

(u) *Whereabouts unknown* (§§ 3.158, 3.656). Date of last payment.

(72 Stat. 1114; 38 U.S.C. 210)

This regulation is effective September 5, 1962.

[SEAL] W. J. DRIVER,
Deputy Administrator.

[F.R. Doc. 62-8848; Filed, Sept. 4, 1962; 8:49 a.m.]

Title 43—PUBLIC LANDS: INTERIOR

Chapter I—Bureau of Land Management, Department of the Interior

APPENDIX—PUBLIC LAND ORDERS

[Public Land Order 2765]

[Wyoming 043373]

WYOMING

Withdrawals for Forest Service Administrative Sites and Recreation Areas

By virtue of the authority vested in the President, and pursuant to Executive Order No. 10355 of May 26, 1952, it is ordered as follows:

Subject to valid existing rights, the following described lands within the Bridger National Forest are hereby withdrawn from prospecting, location, entry and purchase under the mining laws of the United States in aid of programs of

APPENDIX B. Memorandum of Understanding – Saguaro National Park & Papago Indian Tribe, 1963

MEMORANDUM OF UNDERSTANDING

Section 1.2, Part 1, Chapter I, Title 36, Code of Federal Regulations has recently been amended to permit the harvesting of saguaro cactus fruit, within the boundaries of the Tucson Mountain District, Saguaro National Monument, by members of the Papage Indian Tribe.

This memorandum of understanding is being entered into between the Superintendent, Saguaro National Monument, and the Papago Tribal Council in order to assure proper sanitation standards and to provide maximum protection of the natural features within Saguaro National Monument during the harvest period.

It is agreed that:

1. The Papago Indians will comply with the following rules and regulations which have been established for the protection and welfare of visitors and for the preservation of the natural features within Saguaro National Monument.

A. Vehicle travel within the monument will be confined to established roadways.

B. Overnight camping will be restricted to campsites designated by the monument superintendent. Adequate sanitary facilities will be provided and maintained by the National Park Service.

C. Campsites and harvest areas will be kept clean and free of litter at all times. Trash will be placed in containers to be provided by the National Park Service.

D. Permanent or semi-permanent structures will not be erected. Shelters shall be limited to ordinary camping facilities such as tents, tarps, etc.

E. Wildlife, historic or prehistoric artifacts and vegetation, other than saguaro cactus fruit, are not to be destroyed, damaged, or removed from National Monument lands.

F. Saguaro cactus fruit shall be consumed or used in the traditional manner by the Papago Indians. The harvested fruit will not be sold to commercial seed companies, curio shops or nurseries.

G. The privileges herein extended shall apply to all members of the Papago Tribe regardless of residence.

2. This agreement is subject to review annually prior to the harvest season.

Paul A Judge
Superintendent
Saguaro National Monument

May 31, 1963
Date

Eugene Jr Johnson
Chairman
Papago Tribal Council

June 6, 1963
Date

APPENDIX C. Plant Harvest Request From the Tohono O'odham Nation

TOHONO O'ODHAM NATION
OFFICE OF THE
CHAIRMAN AND VICE CHAIRMAN

EDWARD D. MANUEL
CHAIRMAN

VERLON M. JOSE
VICE CHAIRMAN

March 7, 2018

Leah McGinnis
Superintendent
Saguaro National Park
3693 South Old Spanish Trail
Tucson, Arizona 85730

Dear Superintendent McGinnis,

As required by the new NPS plant gathering regulation, *Gathering of Certain Plants or Plant Parts by Federally Recognized Indian Tribes for Traditional Purposes*, the Tohono O'odham Nation requests to continue the harvest of saguaro fruits and cholla buds by tribal members on lands that are now managed by Saguaro National Park.

Our response to the three requirements of this request are as follows:

Requirement #1: An explanation of the traditional association and how it predates the park.

Plant materials from saguaros and chollas have been utilized by tribal members on lands now managed by Saguaro National Park for millennia. Since establishment of the Tucson Mountain District as part of Saguaro National Monument (now Saguaro National Park) in 1961, members of the Tohono O'odham Nation have continued to harvest plant parts on NPS lands. These practices are well-documented in an ethnographic study written for the park by a University of Arizona Bureau of Applied Research in Anthropology report (Toupal et al., 2006), which traces accounts of the Spaniard Pedro de Castaneda witnessing saguaro fruit harvesting by our people in 1540.

Requirement #2: A brief explanation of the traditional purposes to which the gathering activity will relate.

Saguaros are an integral part of the cultural identity of the Tohono O'odham Nation. Fruit from specific saguaro stands are harvested by designated family groups. Our Nation's traditional beliefs treat saguaros as family ancestors. The interaction of tribal members with saguaros through the fruit harvest is a necessary part of maintaining these relationships with benefits to tribal members and saguaros. Cholla buds are also a significant food staple in the traditional diet. Many plants were historically harvested from these lands by tribal members for food, and cholla buds remain as one of the primary plants valued as a food resource.

Requirement #3: A description of the gathering activity the tribe wants to conduct.

P.O. BOX 837, SELLS, ARIZONA 85634 PHONE:520.383.2028 FAX:520.383.3379

The Tohono O'odham Nation seeks to continue the cultural practice of harvesting saguaro fruits and cholla buds on these lands. Cholla bud harvest typically occurs in April and saguaro fruit harvest typically occurs in late June or early July. When ripe, the Nation would like authorization for tribal members to visit Saguaro National Park to exercise these traditional practices by harvesting plant materials from these species. In keeping with traditional practices, harvest takes place in a sustainable way that minimizes negative impacts to the natural environment.

For more than 50 years, the Tohono O'odham Nation and Saguaro National Park have worked together to ensure that the traditional harvest of plant parts at the park can continue in a sustainable way. We look forward to continuing these practices into the future.

Sincerely,

Edward D. Manuel
Chairman
Tohono O'odham Nation

Reference

Toupal, R.S., H.F. Dobyns, and R.W. Stoffle. 2006. Traditional saguaro harvest in the Tucson Mountain District, Saguaro National Park. University of Arizona Bureau of Applied Research in Anthropology Report to the National Park Service.